

# SDA SERIES

## Single Output, AC/DC Module

### Features:

- Meets UL1950, CSA C22.2 No. 234, Dentori, FCC Class B, VCCI No.2 for conducted noise
- Miniature Size, 43mm x 50mm x 19mm
- Light Weight, 67g
- Input AC100V~AC120V
- 5W and 10W with 5V and 12V outputs
- Natural Convection
- RCC topology
- Available to apply directly to substrate



# Sanken

|                           |   |                               | Rating   | 5 W         |            | 10 W         |           |
|---------------------------|---|-------------------------------|--|-------------|------------|--------------|-----------|
| Item                      |   |                               | Conditions   | SDA005-05   | SDA005-12  | SDA010-05    | SDA010-12 |
| Input                     | Rated Input Voltage                     |                               | AC100-120V   |             |            |              |           |
|                           | Input Voltage Range                     |                               | AC85~132V  |             |            |              |           |
|                           | Input Current                           | Rated input/output conditions | 0.15A(typ)   |             |            | 0.26A(typ)   |           |
|                           | Inrush Current                          |                               | 30A (max)  |             |            | 25A(max)     |           |
|                           | Rated Frequency Range                   |                               | 50/60Hz (Frequency Range 47~440Hz)   |             |            |              |           |
|                           | Efficiency(typ)                         | Rated input/output conditions | 72%  | 76%         | 72%        | 76%          |           |
| Output                    | Rated Output Voltage                    |                               | +5V  | +12V        | +5V        | +12V         |           |
|                           | Adjustable Output Voltage Range         |                               | Fixed  |             |            |              |           |
|                           | Rated Output Current                    |                               | 1.0A   | 0.45A       | 2.0A       | 0.9A         |           |
|                           | Adjustable Output Current Range         |                               | 0~1.0A   | 0~0.45A     | 0~2.0A     | 0~0.9A       |           |
|                           | Maximum Output Power                    |                               | 5W   | 5.4W        | 10W        | 10.8W        |           |
|                           | Ripple Noise(mVp-p)                     | Rated input/output condition  | 120  | 150         | 120        | 150          |           |
|                           | Constant Voltage Accuracy               |                               | ±5%  |             |            |              |           |
| Other                     | Leakage Current                         | Rated input/output conditions | 0.5mA  |             |            |              |           |
|                           | Startup Time                            |                               | 20ms (typ)   | 100ms (typ) | 20ms (typ) | 100ms (typ)  |           |
|                           | Switching Method, Transformer Frequency |                               | RCC topology, approx. 100kHz (under rated input/output conditions)               |             |            |              |           |
|                           | Output Holdup Time                      | Rated input/output conditions | 10ms (typ)   |             |            |              |           |
| Additional Functions      | Over Current Protection                 |                               | Detection above approx. 120% of rated current                                    |             |            |              |           |
|                           | Over Voltage Protection                 |                               | Detection above approx. 114~145% of rated voltage                                |             |            |              |           |
|                           | Remote Sensing                          |                               | N/A  |             |            |              |           |
|                           | Remote On/Off Control                   |                               | N/A  |             |            |              |           |
|                           | Display                                 |                               | N/A  |             |            |              |           |
| Environmental             | Operating Temperature                   |                               | It shall be operated by 80% of rated current at -10~0°C and 50~60°C<br>-10~+60°C |             |            |              |           |
|                           | Storage Temperature                     |                               | -25~+85°C  |             |            |              |           |
|                           | Operating Humidity                      |                               | 30~90% (No Condensation)   |             |            |              |           |
|                           | Storage Humidity                        |                               |  |             |            |              |           |
| Insulation                | Insulation Withstad Voltage             | Between Input and Output      | AC2000V for 1 minute / AC2400V for 3 seconds                                     |             |            |              |           |
|                           |   | Between Input and Frame       |  |             |            |              |           |
|                           |   | Between Output and Frame      |  |             |            |              |           |
|                           | Insulation Resistance                   | Between Input and Output      | 100MΩ (measured with 500V DC Megger)   |             |            |              |           |
|                           |   | Between Input and Frame       |  |             |            |              |           |
|                           |   | Between Output and Frame      |  |             |            |              |           |
| Structural Specifications | Vibration Resistance                    |                               | 10~55Hz 10G 1 hour (X,Y,and Z directions with 3 min. vibration time)             |             |            |              |           |
|                           | Cooling Requirements                    |                               | Natural Convection   |             |            |              |           |
|                           | External Appearance (W x D x H) mm      |                               | 43 x 50 x 19   |             |            | 43 x 55 x 20 |           |
|                           | Weight (g)                              |                               | 67   |             |            | 84           |           |
| Applicable Standards      | Safety Standards                        |                               | UL1950,CSA C22.2 No.234,Dentori  |             |            |              |           |
|                           | EMI Standards                           |                               | FCC Class B, VCCI Class 2  |             |            |              |           |

